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     (FILE 'HOME' ENTERED AT 13:02:19 ON 20 MAR 2003)

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI,
     BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA,
     CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB,
     DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 13:02:30 ON
     20 MAR 2003
               SEA ALPHA(W)AMYLASE(W)PROMOTER
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             22   FILE AGRICOLA
              6   FILE BIOBUSINESS
              3   FILE BIOCOMMERCE
             64   FILE BIOSIS
             56   FILE BIOTECHABS
             56   FILE BIOTECHDS
             32   FILE BIOTECHNO
             33   FILE CABA
              7   FILE CANCERLIT
            105   FILE CAPLUS
             12   FILE CEABA-VTB
              2   FILE CIN
              1   FILE CONFSCI
              3   FILE CROPU
              1   FILE DDFU
            215   FILE DGENE
              1   FILE DRUGU
              2   FILE EMBAL
             24   FILE EMBASE
             25   FILE ESBIOBASE
              1   FILE FEDRIP
              3   FILE FROSTI
             12   FILE FSTA
             11   FILE GENBANK
             24   FILE IFIPAT
              3   FILE JICST-EPLUS
             40   FILE LIFESCI
             52   FILE MEDLINE
             22   FILE PASCAL
              2   FILE PROMT
             47   FILE SCISEARCH
             28   FILE TOXCENTER
            217   FILE USPATFULL
              7   FILE USPAT2
             22   FILE WPIDS
             22   FILE WPINDEX
L1             QUE ALPHA(W) AMYLASE(W) PROMOTER
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     FILE 'USPATFULL, CAPLUS, BIOSIS, BIOTECHDS, MEDLINE, SCISEARCH, LIFESCI,
     CABA, BIOTECHNO' ENTERED AT 13:11:01 ON 20 MAR 2003
L2          93 S L1 AND (HIGH?(W)ACTI? OR IMPROV?(W)ACTI? OR HIGH?(W)EXPRESSIO
L3          48 S L2 AND AMYLOLIQUEFACIENS
L4          45 DUP REM L3 (3 DUPLICATES REMOVED)
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L4 ANSWER 45 OF 45 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1

ACCESSION NUMBER: 1986:181105 CAPLUS
DOCUMENT NUMBER: 104:181105
TITLE: **High expression** of Bacillus licheniformis .alpha.-amylase with a Bacillus secretion vector
AUTHOR(S): Sibakov, Mervi
CORPORATE SOURCE: Recomb. DNA Lab., Univ. Helsinki, Helsinki, SF-00380, Finland
SOURCE: European Journal of Biochemistry (1986), 155(3), 577-81
CODEN: EJBCAI; ISSN: 0014-2956
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A gene coding for the heat-stable .alpha.-amylase [9000-90-2] from B. licheniformis ATCC14580 was expressed with the aid of a B. **amyloliquefaciens** .alpha.-amylase-based expression/secretion vector by joining the structural part of the gene to a pool of vectors after the B. **amyloliquefaciens** .**alpha**.-**amylase promoter** and signal sequence. The recombinant plasmids obtained were stably maintained in B. subtilis, and the heat-stable .alpha.-amylase activity rose several hundred times from the level of the donor. Eight different constructions were further analyzed. Each of them had an intact B. **amyloliquefaciens** signal sequence, the only difference being in a few nucleotides beyond the C terminus of the signal peptide. This, however, was enough to cause .ltoreq.4-fold differences in protein yield. Possible reasons for the variation in the prodn. level are discussed.

Gene (15) 1981. 43

L4 ANSWER 37 OF 45 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT AND ISI
ACCESSION NUMBER: 2001-00127 BIOTECHDS
TITLE: Modified Bacillus **alpha-amylase promoter** having additional restriction sites near the 3' terminus for higher promotion of gene expression in Bacillus;
plasmid pUB-PB-MP or plasmid pUB-PBE-MP-mediated maltose-phosphorylase gene transfer and expression in Bacillus subtilis for foodstuff and drug production
AUTHOR: Inoue Y; Fushimi N; Mizubuchi H; Yamamoto Y; Ohshima Y; Yasutake N; Miyoshi S
PATENT ASSIGNEE: Showa-Sangyo
LOCATION: Tokyo, Japan.
PATENT INFO: WO 2000053778 14 Sep 2000
APPLICATION INFO: WO 2000-JP1415 8 Mar 2000
PRIORITY INFO: JP 1999-286034 6 Oct 1999; JP 1999-60904 8 Mar 1999
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2000-594327 [56]
AB A promoter sequence having **higher activity** than the alpha-amylase gene promoter of a Bacillus sp. strain obtained by inserting near the 3' terminus of the promoter 1 or more additional restriction enzyme cleavage sites, is claimed. Also claimed are: a cassette expressing the novel promoter; a gene expression vector containing the cassette as above; microbial cells transformed by the above vector; and preparation of the gene expression product by culture of the cells as above. The above is used for expression of microbial genes at higher promotion efficiency, for the production of proteins for use as drugs or foodstuffs at lower cost. In an example, polymerase chain reaction with specified DNA primers were used to amplify the Bacillus **amyloliquefaciens** (IFO-15535) **alpha-amylase promoter** to obtain a modified promoter fragment (0.25 kb) having a BamHI restriction cleavage site near the 3' end. Using a Different DNA primer set, a fragment (0.27 kb) with BamHI, SmaI, KpnI, SacI and EcoRI restriction sites was produced. These fragments were inserted into plasmid pUB110 which was used to transform Bacillus subtilis 168 to produce recombinant maltose-phosphorylase. (48pp)